Appendix A

Shell Martinez Refinery

EPA Inspection Photograph Log

Photograph Log	
All photographs on this log were taken with Shell's digital camera, Casio model EXILIM EX-Z50 by Shell employees Michael Monson and Ashley Taylor. Shell requested that EPA not take photos due to camera spark risk and security risk. EPA agreed and directed Shell to take each of the photos below. All photos were taken between March 23- 30, 2015.	
CIMG2378	20 cubic yard roll-off bin located at Shell's Bin Storage Yard. The red container on the left was marked as "Designated Waste" and the container on the right was labeled as "Hazardous Waste". This area was treated as a less than 90 day hazardous waste accumulation area (HWAA).
CIMG2379	Close-up of the label shown in photo CIMG2378 in Shell's Bin Storage Yard HWAA.
CIMG2380	Close-up of the label shown in photo CIMG2378 in Shell's Bin Storage Yard HWAA.
CIMG2381	Close-up of a label on a roll-off container in Shell's Bin Storage Yard HWAA.
CIMG2382	Excluded recyclable material roll-off container in Shell's Bin Storage Yard HWAA.
CIMG2383	Overview of containers in Shell's Bin Storage Yard HWAA.
CIMG2384	Overview of containers in Shell's Bin Storage Yard HWAA.
CIMG2385	Overview of containers in Shell's Bin Storage Yard HWAA.
CIMG2386	Overview of containers in Shell's Bin Storage Yard HWAA.
CIMG2387	Overview of containers in Shell's Bin Storage Yard HWAA.
CIMG2388	Hazardous Waste roll-off container in Shell's Bin Storage Yard HWAA.
CIMG2389	Close-up of the label shown in CIMG2388 in Shell's Bin Laydown Yard.
CIMG2390	Gates at Shell's 90 Day Drum Storage Area HWAA.
CIMG2391	Gates at Shell's 90 Day Drum Storage Area HWAA.
CIMG2392	Equipment located outside of Shell's 90 Day Drum Storage Area HWAA.
CIMG2393	Close-up of fire extinguisher certification tab. Note that the extinguisher has not been certified for 2015.
CIMG2394	View of extinguisher shown in CIMG2393.
CIMG2395	View of extinguisher shown in CIMG2393.
CIMG2396	Electrical Laydown Yard where PCB transformers were once stored.
CIMG2397	Electrical Laydown Yard where PCB transformers were once stored.
CIMG2398	Storm water monitoring point 4.
CIMG2399	Clean Fuels sump.
CIMG2400	Clean Fuels sump.
CIMG2401	Clean Fuels sump.
CIMG2402	Overview photo of Clean Fuels sump.
CIMG2403	Overview photo of Clean Fuels sump.
CIMG2404	Overview photo of Clean Fuels sump.
CIMG2405	Hazardous waste container located in the Clean Fuels area. Inspectors noted that this container was left open at the time of the inspection with no personnel present. Shell personnel closed this container during the inspection.
CIMG2406	View of the gross oil separator (GOS). The liquid is on top of the GOS.
CIMG2407	Same view of CIMG2406. Note the blue carbon canister used to treat the vented VOCs.
CIMG2408	View of the upper end of the GOS.
CIMG2409	View of the lower end of the GOS.
CIMG2410	View of the GOS. In the background of this photo is a wastewater sampling collection point.
CIMG2411	Blue carbon canister used to treat the vented VOCs.
CIMG2412	Excluded recyclable material tank. The ERM label had been obliterated at the time of the

	inspection. Note that the secondary containment beneath the tank was nearly full with liquid and limited freeboard.
CIMG2413	Excluded recyclable material tank. The ERM label had been obliterated at the time of the inspection. Note that the secondary containment beneath the tank was nearly full with liquid and limited freeboard.
CIMG2414	Excluded recyclable material tank. The ERM label had been obliterated at the time of the inspection. Note that the secondary containment beneath the tank was nearly full with liquid and limited freeboard.
CIMG2415	View of the Low Point Sump.
CIMG2416	View of the Low Point Sump.
CIMG2417	View of the Low Point Sump.
CIMG2418	Middle portion of Lake Slobodnik.
CIMG2419	Middle portion of Lake Slobodnik.
CIMG2420	Middle portion of Lake Slobodnik.
CIMG2421	Upper portion of Lake Slobodnik. Note the abundant dark, oily staining on the banks and protruding concrete support structure.
CIMG2422	Upper portion of Lake Slobodnik. Note the abundant dark, oily staining on the banks and protruding concrete support structure.
CIMG2423	Upper portion of Lake Slobodnik. Note the abundant dark, oily staining on the banks and protruding concrete support structure.
CIMG2424	Upper portion of Lake Slobodnik. Note the abundant dark, oily staining on the bank.
CIMG2425	Upper portion of Lake Slobodnik. Note the abundant dark, oily staining on the bank.
CIMG2426	Upper portion of Lake Slobodnik. Note the abundant dark, oily staining on the bank.
CIMG2427	Upper portion of Lake Slobodnik. Note the abundant dark, oily staining on the bank.
CIMG2428	Upper portion of Lake Slobodnik. Note the abundant dark, oily staining on the bank.
CIMG2429	View of the selenium treatment ponds. Photo was taken from the selenium wastewater treatment plant.
CIMG2430	View of the pond 5D.
CIMG2431	View of the pond 5D. The sludge processing 2-phased centrifuge is located in the background of the photo with yellow safety rails.
CIMG2432	View of the pond 5D. Note the limited freeboard.
CIMG2433	View of the pond 5E.
CIMG2434	View of the pond 5E.
CIMG2435	Oily staining on the grounds at the selenium treatment area. Note the accumulated kitty litter, indicating that previous spills had not been completely addressed.
CIMG2436	Solids skimmer at the selenium treatment pond.
CIMG2437	GAC backwash discharging into pond 5D.
CIMG2438	Crack in the asphalt at the selenium treatment area.
CIMG2439	Oily staining and cracks on the grounds at the selenium treatment area.
CIMG2440	Oily staining at the selenium treatment area draining into pond 5D.
CIMG2441	Perimeter of Pond 8 at the selenium treatment area.
CIMG2442	Perimeter of Pond 8 at the selenium treatment area. Note the GAG unit in the background.
CIMG2443	View of Pond 5C2.
CIMG2444	View of Pond 5E which receives influent from EPT2 and EPT3. Note the selenium treatment plant in the center-right of the photograph.
CIMG2445	View of Pond 8.
CIMG2446	View of Pond 8.
CIMG2447	View of Pond 5C2 (effluent pond).
CIMG2448	View of Pond 5C1, which receives influent from EPT1.

CIMG2449	View of Pond 5C1, which receives influent from EPT1.
CIMG2450	Photo of a sandbox at the API.
CIMG2451	View of the API area. The Baker tank in the middle of the photo is part of a 3-phased process unit used for diversion tank clean-out, operated by Clean Harbors.
CIMG2452	View of the API. The Baker tank in the middle of the photo is part of a 3-phased process unit used for diversion tank clean-out, operated by Clean Harbors.
CIMG2453	View of the API. The taker Tank in the middle of the photo is part of a 3-phased process unit used for diversion tank clean-out, operated by Clean Harbors.
CIMG2454	API sandbox.
CIMG2455	Label on one of the two API sandbox units.
CIMG2456	Label on the second API sandbox unit.
CIMG2457	Inadvertent photograph.
CIMG2458	View of the entry point to an API sandbox unit.
CIMG2459	Close up view of the entry point to an API sandbox unit.
CIMG2460	Hazardous waste satellite accumulation point near the API separator.
CIMG2461	Label on a satellite container shown in CIMG2460.
CIMG2462	Label on an aerosol can satellite container shown in CIMG2460.
CIMG2463	Close up of a satellite container shown in CIMG2460.
CIMG2464	View of the area shown in CIMG2460.
CIMG2465	Label on F037 waste in a roll-off container located at the API separator area. This area is subject to the 90 day accumulation area requirements and was not identified by Shell as a HWAA.
CIMG2466	Former permitted hazardous waste storage tank 12038. The tank is currently used to hold bio treater waste.
CIMG2467	EPT1, also named Pond 7.
CIMG2468	EPT1 primary clarifier box.
CIMG2469	EPT1 primary clarifier box.
CIMG2470	EPT1 pond aerator.
CIMG2471	Shaker solids (F037, F038, K050, K051) from the liquid waste handling site. Reportedly, the liquid in the container was from a recent rain event, according to Shell personnel.
CIMG2472	Side view of the container shown in CIMG2471.
CIMG2473	Label on the container shown in CIMG2471.
CIMG2474	View of the container shown in CIMG2471.
CIMG2475	View of liquids in the container shown in CIMG2471.
CIMG2476	View of liquids in the container shown in CIMG2471.
CIMG2477	Label on a container of off-spec polymer located at the liquid waste handling area.
CIMG2478	Label of an off-spec foam control container at the liquid waste handling area.
CIMG2479	View of CIMG2478.
CIMG2480	Unlabeled grit drums (non-RCRA).
CIMG2481	Container of excludable recyclable materials. At the time of the inspection, this container was labeled as Used Oil and Shell personnel changed the label to ERM.
CIMG2482	Close up of container shown in CIMG2481.
CIMG2483	RCRA-empty phosphoric acid totes.
CIMG2484	Close up of the totes shown in CIMG2483.
CIMG2485	RCRA-empty phosphoric acid totes. The container on the right appears not to be empty.
CIMG2486	Recovered oil operation operated by Clean Harbors. Operations here include three phase separation oil, solids and water.
CIMG2487	Air pollutions control equipment at the Recovered Oil Unit.

CIMG2488	20 cubic yard roll-off of RCRA-hazardous waste solids at the Recovered Oil Unit.
CIMG2489	Close up label on the 20 cubic yard roll-off of RCRA-hazardous waste solids at the Recovered Oil Unit.
CIMG2490	View of carbon monoxide boiler (COB) 3.
CIMG2491	Baghouse unit for fly ash (K048 and D010.) Note the accumulated regulated fly ash on the wooden structure beneath the baghouse.
CIMG2492	25 Super Sacks (one cubic yard each) of waste fly ash (K048 and D010.) This is another Less Than 90 Day HWAA not identified by Shell.
CIMG2493	Photo of the heat exchanger bundle cleaning east pad area. A PSC vacuum truck was being cleaned out during the inspection. Solids with an unknown waste classification were observed beneath the PSC truck.
CIMG2494	West trench drain at the heat exchanger bundle cleaning pad area. Note the solids mixed with K050 waste in the drain. Also note the deteriorated concrete in the lower portion of the photo.
CIMG2495	Central trench drain at the west pad heat exchanger bundle cleaning pad area. Note the solids mixed with K050 waste in the drain.
CIMG2496	Central trench drain at the west pad heat exchanger bundle cleaning pad area. Note the solids mixed with K050 waste in the drain. Note the pavement cracks on the right portion of the photo.
CIMG2497	Three cleaned bundle units situated over the center trench. The steam cleaning unit is at the center right of the photograph. The east trench is located in the far right of the photograph. This photo was taken facing southwest. Note the several large cracks in the pavement.
CIMG2498	Close up view of the center trench drain near the steam cleaning unit. Note the accumulated the solids mixed with K050 waste sticking to the metal.
CIMG2499	Close up view of the center trench drain near the steam cleaning unit. Note the accumulated the solids mixed with K050 waste.
CIMG2500	Overview photo of the west bundle cleaning pad.
CIMG2501	Photo of the heat exchanger bundle cleaning pad area. A PSC vacuum truck was being cleaned out during the inspection. Solids with an unknown waste classification were observed beneath the PSC truck.
CIMG2502	Fire extinguisher at the Central Waste area. The last inspection date was September 16, 2011.
CIMG2503	Eye wash station at Central Waste. Note that only non-RCRA hazardous waste was stored at this location.
CIMG2504	Contents of a 40 cubic yard roll off container of oily waste at Central Waste.
CIMG2505	Overview photo of the container shown in CIMG2504.
CIMG2506	Label on the container shown in CIMG2504.
CIMG2507	Leaking material coming from container shown in CIMG2504.
CIMG2508	Dumped solid waste adjacent to Central Waste.
CIMG2509	Overview of Central Waste area. Photo was taken facing north.
CIMG2510	½ cubic yard of unknown solids in a 20 cubic yard roll-off container at the empty container storage area (PSC135).
CIMG2511	Outside view of the container shown in CIMG2510.
CIMG2512	View of the hazardous waste satellite collection area at Shell's Insulators and Paint Shop. Note the partial view a 55 gallon container of solvent waste which had been designated for transfer to the Liquid Waste Storage Area since March 11, 2015 located on the far right of the photo (in transit to the HWAA for over 3 days).
CIMG2513	Fire extinguisher inside the Insulators and Paint Shop.
CIMG2514	Universal waste batteries collection container in the Insulators and Paint Shop.
CIMG2515	Sandblast pad area operated by Brand. Numerous containers of solvent (D001 and/or D035, F003) and aqueous-based paint waste were left open to dry. Note that DTSC's air monitor detected over 1 ppm VOCs at this area.
CIMG2516	Top view of the containers shown in CIMG2515.

CIMG2517	View inside the middle paint locker at the sandblast pad area operated by Brand. Note the empty paint thinner containers being stored on secondary containment pads.
CIMG2518	Secondary containment pad pictured in CIMG2517. Note the secondary containment was nearly full and had limited freeboard.
CIMG2519	Hazardous waste container in the back of the middle locker in the sandblast pad area operated by Brand. Note that the container was not labeled.
CIMG2520	View of the warning label on one of the containers shown in CIMG2515.
CIMG2521	View of the warning label on one of the containers shown in CIMG2515.
CIMG2522	Universal waste container at the Recycling Center.
CIMG2523	Contents of the container shown in CIMG2522.
CIMG2524	Universal waste container for ballasts at the Recycling Center. None of the ballasts contained PCBs.
CIMG2525	Universal waste container for ballasts at the Recycling Center. None of the ballasts contained PCBs.
CIMG2526	Universal waste container for “ballasts” at the Recycling Center. EPA believed these objects were capacitors and not ballasts.
CIMG2527	6A fume hood at Shell’s Quality Assurance Lab. Note the containers of xylene, acetone, toluene and hexane which are used to clean lab equipment and/or extraction of petroleum for analysis. The spent solvents are placed in the one gallon red container pictured in the center of the photo. Note that the red container was not labeled.
CIMG2528	6A fume hood at Shell’s Quality Assurance Lab. There were two hazardous waste satellite collection containers in fume hood 6A. The container with a yellow label in the background of this photo was one of the two containers used to collect waste pipettes, wipes, solid and other contaminated debris. Note that both containers were not closed. Note that 15 other fume hoods had similar configurations in the Quality Assurance Lab.
CIMG2529	Vessel 18259 located outside of the Quality Assurance Lab. The vessel reportedly had capacity to hold 249 gallons. The vessel is used to accumulate hazardous liquid lab wastes which are sent to the Recovered Oil Unit.
CIMG2530	Fume hood in the building adjacent to Shell’s Quality Assurance Lab used to transfer solvent and tested material to Vessel 18259. The hood is the location of the sink that is connected to vessel 18259.
CIMG2531	Tested material destined for transfer to vessel 18259.
CIMG2532	Universal waste batteries at the Utilities Operations Center office stored in an unlabeled open container.
CIMG2533	Sulfur loading rack. Note the accumulated dry yellow sulfur powder on the ground next to a storm drain.
CIMG2534	Sulfur loading rack. Note the accumulated dry yellow sulfur powder on the ground next to a storm drain.
CIMG2535	Sampling port for Subpart FF benzene NESHAP flare sump. Note the horizontal liquid knockout pot in the background.
CIMG2536	Open container of oily waste in the North Gate transfer area.
CIMG2537	Overview of bags of oily waste shown in CIMG2536.
CIMG2538	View of absorbant material placed on spills at the North Gate transfer area.
CIMG2539	Unlabeled and open container of unknown liquid waste that appeared to be oily waste.
CIMG2540	Several rusted containers stored in a locker in Crude Hill.
CIMG2541	Several rusted containers stored in a locker in Crude Hill.
CIMG2542	Overview photo of the locker in Crude Hill.
CIMG2543	Overview photo of the locker in Crude Hill.
CIMG2544	Discarded lamps in the locker in Crude Hill.
CIMG2545	Fume hood at the field lab located within the Crack Products Blast Resistant Module, containing

	chloroform, acetone and xylene. Note that the red satellite accumulation container was not labeled. Spent acid and caustics generated at the QA lab are brought to the sink and poured down the drain shown in the left portion of this photo.
CIMG2546	Portable Gas Buggy used to collect spent solvents from various production areas at the facility. These satellite containers are emptied at the maintenance dropout area, which is a segregated sewer system.
CIMG2547	Overview photo of location where CIMG2546 was taken.
CIMG2548	Photo of whiteboard notes generated during the inspection.
CIMG2549	Photo of whiteboard notes generated during the inspection.


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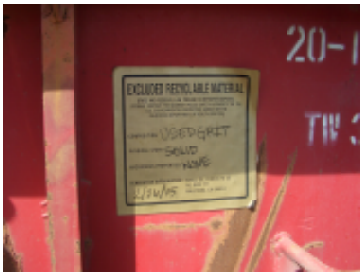
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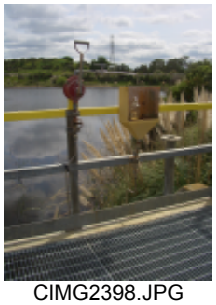
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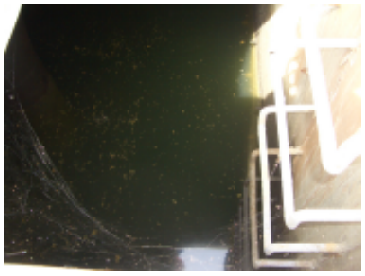
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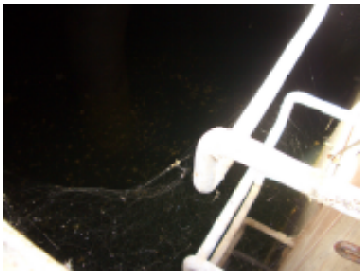
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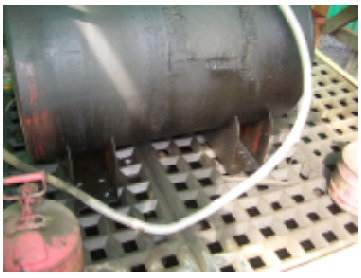
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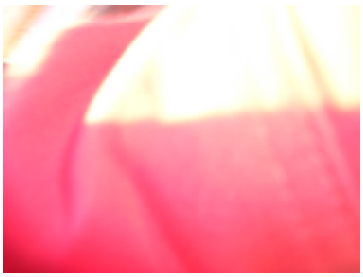
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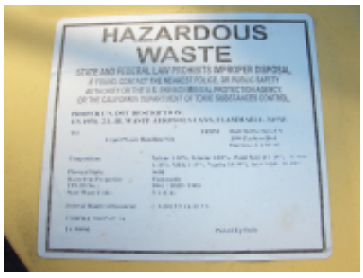

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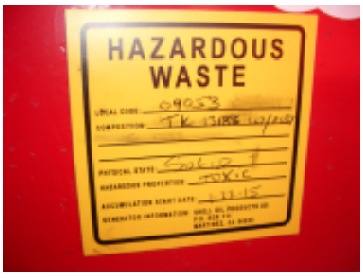

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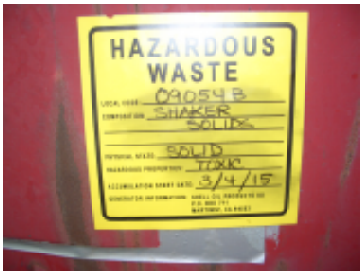

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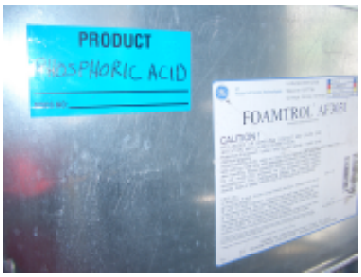

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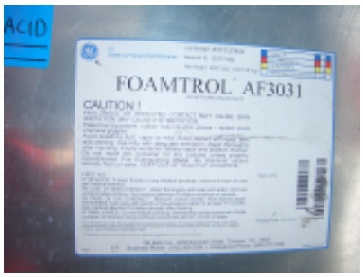

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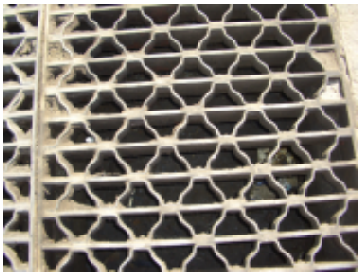
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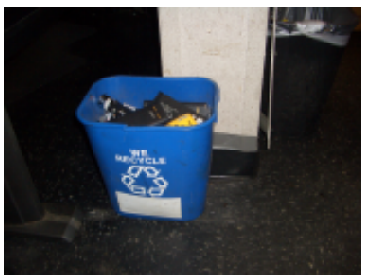
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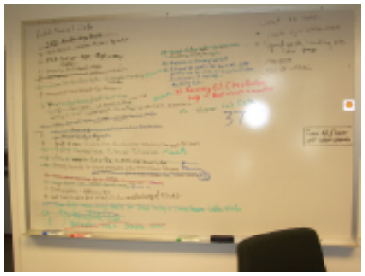
CIMG2546.JPG

CIMG2547.JPG



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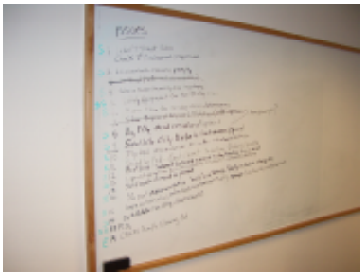

CIMG2549.JPG

Region 9 Enforcement Division
75 Hawthorne Street
San Francisco, CA 94105

Shell Martinez Refinery Photographs
(referenced in EPA's inspection report)

CIMG2529 – Laboratory tank, vessel V-18259, containing discarded spent solvents

CIMG 2527 Fume hood 6A at SMR's Quality Assurance Laboratory. The spent solvents are placed in the one gallon red container pictured in the center of the photo. The container was not labeled.

CIMG2528 Fume hood 6A at SMR's Quality Assurance Laboratory. Note the container that was used to collect waste was open.

CIMG2530 Fume hood in the building adjacent to the main Quality Assurance Laboratory. The spent solvents collected in the containers in the fume hoods in the laboratory were brought here to be poured down the sink to Vessel V-18259.

CIMG2545 Fume hood at the Crack Product field laboratory. Note that the red satellite accumulation container was not labeled.

CIMG2546 “R2D2” gas buggies on the process block.

CIMG2487 Recovered Oil Unit, Tank 15096 in the background

CIMG2515 Sandblast pad/paint area – containers with spent solvent and aqueous based paint wastes were left open to dry.

CIMG2516 Top view of the containers in CIMG2515

CIMG2518 Secondary containment pad for the paint locker at the Sandblast pad area.

CIMG2512 Hazardous waste satellite collection area at Shell's maintenance/paint shop.

CIMG2491 Super sacks containing K048/D010 fly ash wastes. Note accumulation of fly ash on the wooden structure.

CIMG2492 25 Super sacks (one cubic yard each) of K048/D010 fly ash waste

CIMG2493 Heat Exchanger Bundle Cleaning Pad area.

IMG_1201[1] Heat Exchanger Bundle Cleaning Pad - taken by Contra Costa County Health Services Inspector on 12/18/2015

IMG_1203[1] Heat Exchanger Bundle Cleaning Pad - taken by Contra Costa County Health Services Inspector on 12/18/2015.

CIMG2391 SMR's 90 Day Drum Storage Area HWAA

CIMG2387 Containers in SMR's Bin Storage Yard HWAA